ABSTRACT OF THE INVENTION

A laminated ultrasonic waveguide and a method of fabrication thereof which comprises stamping at least two pieces of sheet stock to form stamped parts of the laminated ultrasonic waveguide. The stamped parts are then laminated together to form a laminated ultrasonic waveguide for transferring ultrasonic acoustic energy along a longitudinal axis of the laminated ultrasonic waveguide. In several disclosed embodiments, the laminated ultrasonic waveguide is part of an ultrasonic surgical instrument having an active tip end-effector which is placed in contact with tissue of a patient to couple ultrasonic energy transferred along the laminated ultrasonic waveguide to the tissue. The stamped pieces of sheet stock can also be stamped to form one or more channels extending along the length of the laminated ultrasonic waveguide. The laminated ultrasonic waveguide can also define a connector at a proximal end thereof to transfer ultrasonic energy into the laminated ultrasonic waveguide. In different embodiments, the laminated ultrasonic waveguide comprises first and second (and third or more) stamped pieces of sheet stock which are laminated together.